

Statistics in focus

POPULATION AND SOCIAL CONDITIONS

9/2004

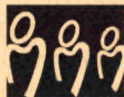
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Labour Costs in Europe 1996 - 2002

This Eurostat publication presents time series for 19 of the 25 EU Member States (MS) and for 2 of the 3 Candidate Countries (CC) on average nominal labour costs in Industry and Services for full-time employees (sections C-K of NACE Rev.1.1). The series relate to hourly and monthly labour costs and cover for 13 MS the full period from 1996 – 2002 and for 2 MS the time span 1997 - 2002. For 4 MS the figures referring to 2002 were still missing at the end of April 2004, the closing date for this publication.

This Statistics in Focus also presents for the same period figures on labour cost components. Since labour cost structures tend to change slowly over time, the analysis of labour cost structures includes also countries which only provided data on cost structures for 1996 and 2000, the years of the recent basic labour cost surveys.

The term "labour costs" refers to the expenditure borne by employers for their employees. As labour costs usually represent the main part of production costs for goods and services, a close monitoring of labour cost levels, structures and trends are highly important for any socio-economic policy decision-making.

The data were provided on the basis of a Gentlemen's Agreement. Data provided in national currencies were all converted into euro. Background information on methods, definitions and abbreviations of countries and NACE sections are presented in the Methodological Notes at the end of this paper.

Level of hourly labour costs varied enormously between countries

Figure 1 shows the development of labour costs per hour in Industry and Services (NACE sections C-K) for a subset of those 13 MS for which labour costs data were available for the complete period 1996 – 2002.

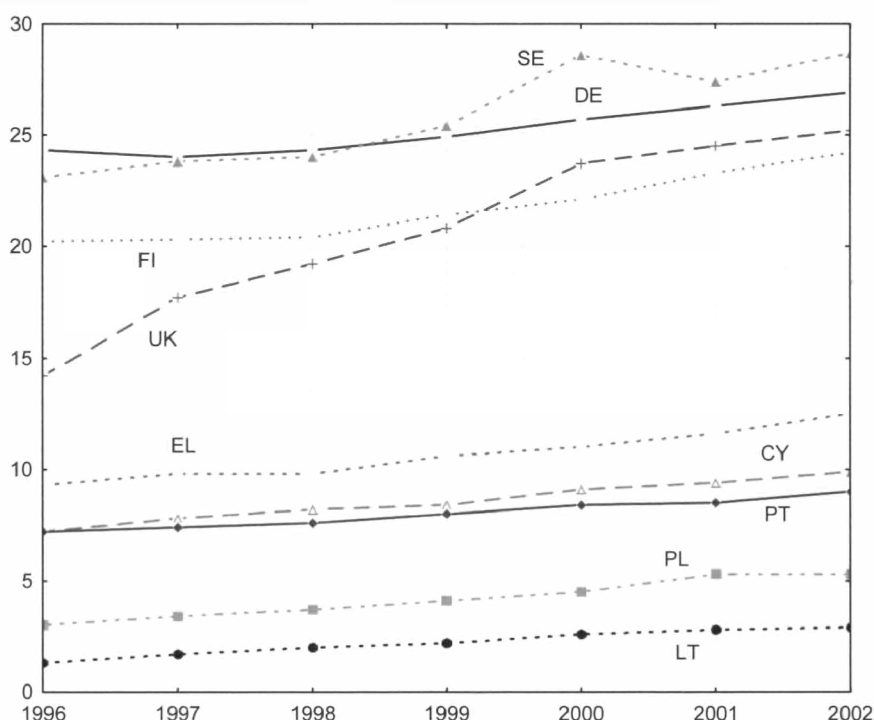


Figure 1: Hourly labour costs in Industry and Services, in euro, 1996-2002 for selected countries

Figure 1 shows on one hand that the level of hourly labour costs varied enormously between countries. It amounted in 1996, for example, to 24.3 euro in Germany and to 1.3 euro in Lithuania. In 2002, the

corresponding figures for these countries were 26.9 euro and 2.9 euro, respectively. On the other hand, the growth rate was not uniform. The full numerical information for all MS and CC is given in Table 1.

MS	1996	1997	1998	1999	2000	2001	2002	Average annual growth rate (in %)
CZ	2.8	3.0	3.2	3.4	3.9	4.6	5.4	11.6
DK	:	23.4	24.6	25.9	26.5	28.5	29.1	4.5
DE	24.3	24.0	24.3	24.9	25.7	26.3	26.9	1.7
EE	1.9	2.1	2.4	2.6	2.9	3.2	3.7	11.7
EL	9.3	9.8	9.8	10.6	11.0	11.6	12.5	5.1
ES	14.4	14.2	14.1	14.2	14.2	13.1	13.6	-0.9
FR	22.5	22.4	22.8	23.6	24.4	25.1	:	2.2
CY	7.2	7.8	8.2	8.4	9.1	9.4	9.9	5.5
LV	:	1.6	1.7	1.9	2.2	2.3	2.4	8.4
LT	1.3	1.7	2.0	2.2	2.6	2.8	2.9	14.3
LU	21.4	21.3	21.6	22.5	24.5	25.4	26.2	3.4
HU	2.9	3.1	3.3	3.5	3.8	4.2	:	7.7
PL	3.0	3.4	3.7	4.1	4.5	5.3	5.3	9.9
PT	7.2	7.4	7.6	8.0	8.4	8.5	9.0	3.8
SI	7.4	7.9	8.5	8.9	9.0	9.6	:	5.3
SK	2.2	2.6	2.9	2.8	3.1	3.3	:	8.4
FI	20.2	20.3	20.4	21.4	22.1	23.3	24.2	3.1
SE	23.1	23.8	24.0	25.4	28.6	27.4	28.7	3.7
UK	14.2	17.7	19.2	20.8	23.7	24.5	25.2	10.0
CC	1996	1997	1998	1999	2000	2001	2002	Average annual growth rate (in %)
BG	:	:	:	:	1.2	1.3	1.3	4.1
RO	:	:	:	:	1.4	1.6	1.7	10.2

Table 1: Hourly labour costs in Europe in Industry and Services, in euro, 1996-2002

Table 1 and the excerpt visualized by Figure 1 show that, not surprisingly, the hourly labour costs tend for almost all countries to increase over time. More interesting is a closer look at the average annual growth rates displayed in Table 1.¹ The lowest average annual growth rates are, apart from Spain², found in Germany, France and Finland and amount to 1.7%, 2.2% and 3.1%, respectively. The highest average annual growth rates refer to Lithuania (14.3%), Estonia (11.7%) and

the Czech Republic (11.6%). The relatively high values for the latter three countries and also for the United Kingdom (10.0%) do not only reflect changes in labour costs but also in exchange rates of the national currencies against the euro. This eclipsing of changes in labour costs and variations as regards the exchange rate of the national currency against the euro has to be taken into account for all non-Eurozone countries.³

¹The average annual growth rate of a country denotes the geometric mean of the annual labour cost growth factor, diminished by 1. For expressing an average growth rate as a percentage, it is to be multiplied by 100.

²Due to methodological changes in Spain from 2001 onwards, there are breaks in the Spanish series between 2000 and 2001.

³In order to remove the effects of exchange rate variation of national currencies against the euro, one may express time series in Purchasing Power Standards (PPS). The average annual growth rates for the resulting PPS time series are usually lower. One gets, for example for Lithuania 6.9% instead of 14.3% or for the United Kingdom 4.1% instead of 10.0%. For Germany the value amounts to 2.1% instead of 1.7% and for Finland to 3.4 instead of 3.1% (caused by slight currency exchange rate effects before the introduction of the Euro in both countries in 1999).

Figure 2 presents the time series data in Table 1 from another perspective. It displays for every country the maximum and the minimum of the time series elements

by connecting both characteristics by means of a line. The resulting graph, a so-called whisker plot⁴, also displays the median for every country-specific data set.

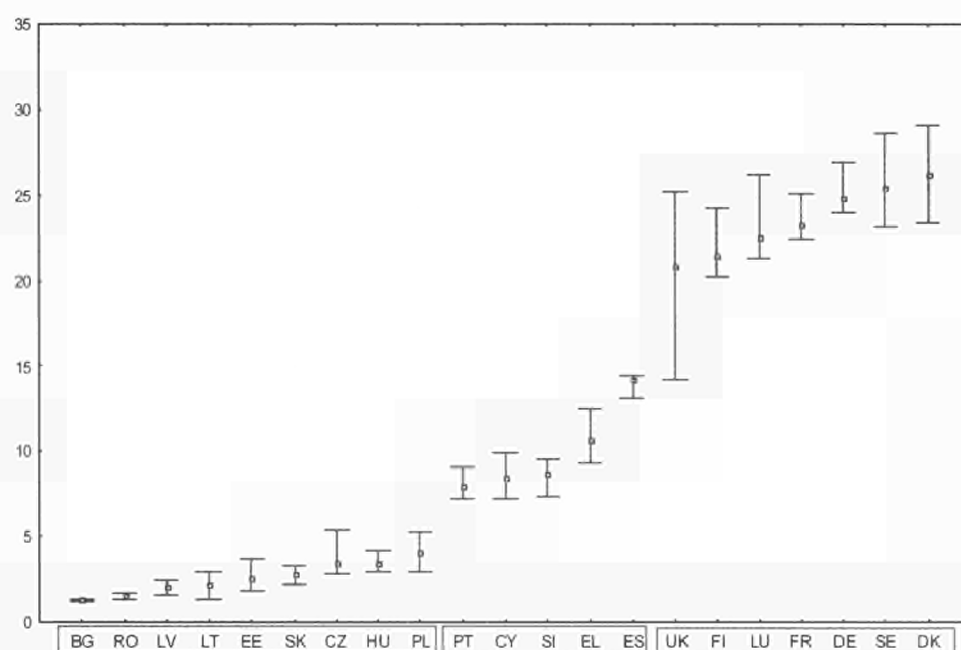


Figure 2: Minimum, maximum and median of hourly labour costs in Industry and Services, in euro, 1996-2002

The countries are ordered by increasing median. The graph distinguishes roughly three subsets of countries as indicated at the horizontal axis: countries with low, medium and high average hourly labour costs. The first group contains the Candidate Countries Bulgaria and Romania and 7 of the 10 new MS (Latvia, Lithuania, Estonia, Slovakia, the Czech Republic, Hungary and

Poland). The group with medium-size hourly labour costs embraces two further new MS, Cyprus and Slovenia, in addition to the "old" Member States Portugal, Greece and Spain. The third group covers the United Kingdom, Finland, Luxembourg, France, Germany, Sweden and Denmark.

Differences for monthly labour costs are slightly less pronounced

The level of labour costs in Europe may also be compared in terms of monthly costs per full-time employee. Table 2 gives the numerical information for Industry and Services (NACE aggregate C-K). All figures are rounded up to the nearest euro. The table contains the same countries with the exception of Luxembourg for which monthly labour cost data are not available.

Again, one observes large differences between countries with regard to the level of monthly labour costs. The values in 1996, for example, varied between 158 euro (Romania) and 3305 euro (Sweden). In 2002 the extreme figures were 194 euro (Bulgaria) and 4072 (Sweden).

⁴ A whisker plot graphically presents the range of a data set which is defined by the difference between maximum and minimum. Figures 2 and 3 also display the medians and hence aggregate the information contained in each data set for a country to three characteristics. Figure 2 displays, for example, as regards the United Kingdom, the values 25.2 euro (maximum observed in 2002) and 14.2 euro (minimum observed in 1996) as well as the median, which amounts to 20.8 euro. For countries with incomplete time series the whisker plots refer to the available data (for example, only three values in case of Bulgaria and Romania).

MS	1996	1997	1998	1999	2000	2001	2002
CZ	426	446	491	519	582	661	770
DK	:	3201	3444	3659	2944	3128	3922
DE	3239	3221	3297	3411	3463	3521	3611
EE	276	320	364	394	429	496	562
EL	1446	1513	1500	1615	1658	1740	1849
ES	2066	2028	2015	2027	2031	1867	1940
FR	3136	3111	3112	3167	3274	3355	:
CY	1252	1352	1417	1460	1572	1634	1713
LV	:	253	267	290	343	350	361
LT	192	260	302	334	392	:	:
HU	434	476	494	523	568	640	:
PL	447	511	563	612	672	792	783
PT	1062	1086	1109	1157	1199	1250	1314
SI	1062	1139	1226	1289	1283	1338	:
SK	318	401	419	400	445	480	:
FI	2769	2776	2790	2923	3047	3217	3330
SE	3305	3400	3428	3635	4047	3885	4072
UK	2169	2798	2980	3217	3677	3793	3891
CC	1996	1997	1998	1999	2000	2001	2002
BG	:	:	:	:	179	190	194
RO	158	155	192	179	218	222	250

Table 2: Monthly labour costs in Europe in Industry and Services, in euro, 1996-2002

Figure 3 shows the rows of Table 2 by means of whisker plots. Again, the countries are ordered by increasing median. As in Figure 2, the graph distinguishes three subsets of countries. The assignment of the countries to one of these groups is still the same but the within-group ranking position slightly changed. Within the first group the countries Latvia/Lithuania and Hungary/the Czech Republic

changed their neighbouring positions whereas in the second group the same observation is made for Slovenia/Cyprus. Within the group with high monthly labour costs, Denmark has now a higher and the United Kingdom a lower ranking position. These slight changes are partly due to differences between countries with regard to the number of hours worked per month and full-time employee.

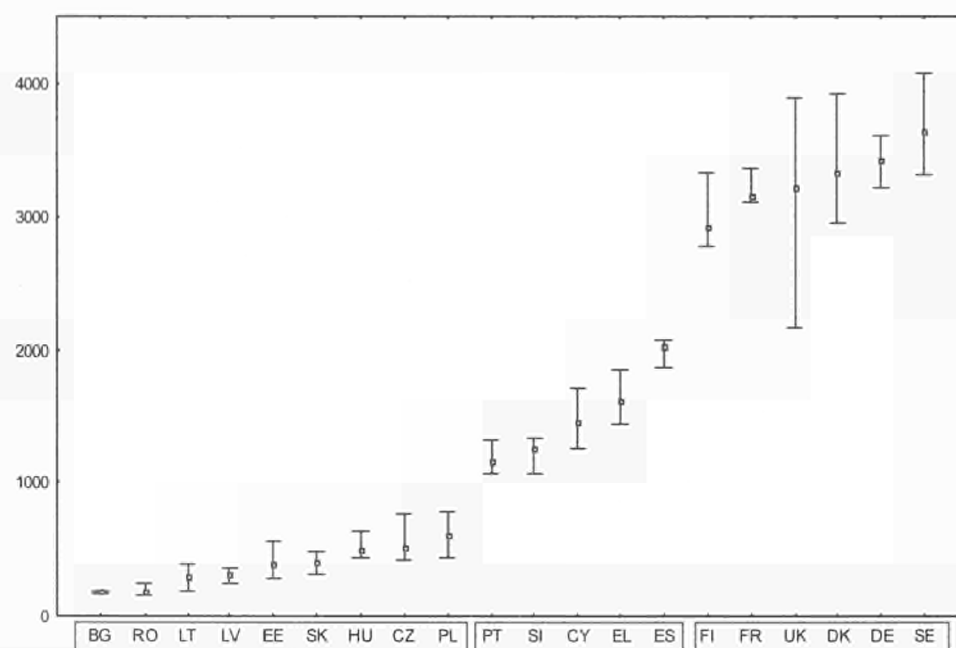


Figure 3: Minimum, maximum and median of monthly labour costs in Industry and Services in euro, 1996-2002

Analysis of structures for labour cost components

Total labour costs can be broken down into the components "Wages and salaries", "Employers' social contributions" and "Other labour costs" (see the Methodological Notes). Differences in the structure of costs between countries largely reflect differences in national policies with respect to social security systems.

Table 3 presents the breakdown of total labour costs in Industry and Services (NACE sections C-K) into the components "Wages and salaries" and "Employer's social contributions", both expressed as a percentage of total labour costs. The residual "Other labour costs" is

the difference between 100 and the sum of these two components. As Table 3 shows, the component "Wages and salaries" always accounts for the largest share of total costs in all countries. The share varied only slightly over time but it varied considerably between countries. The highest percentages for "Wages and salaries" for 2002 have been observed in Denmark, Luxembourg and Cyprus (87.4%, 84.4% and 84.2%, respectively), the lowest in Sweden, Romania, the Czech Republic and Hungary (66.5%, 69.0% and twice 70.0%, respectively). The residual variable "Other labour costs" generally accounts for a small percentage of total costs.

	Wages and salaries (%)							Employers' social contributions (%)						
	1996	1997	1998	1999	2000	2001	2002	1996	1997	1998	1999	2000	2001	2002
CZ	72.6	72.9	73.1	72.7	72.0	72.0	70.0	25.8	25.7	25.6	26.0	26.6	26.6	26.8
DK	:	90.7	89.4	89.6	89.3	87.7	87.4	:	7.1	8.0	7.8	8.1	9.4	10.0
DE	76.5	76.2	76.3	76.6	76.5	76.5	76.4	22.8	23.2	23.0	22.7	22.8	22.8	22.9
EE	73.8	73.8	73.8	73.9	73.1	73.1	72.8	26.0	26.0	26.0	25.9	25.5	25.5	25.8
EL	75.2	75.5	75.9	76.4	76.9	77.5	78.1	24.0	23.8	23.5	23.2	22.9	22.5	22.1
ES	74.0	:	:	:	74.7	:	73.7	24.4	:	:	:	24.5	:	26.0
FR	67.4	67.7	67.8	67.7	68.2	68.5	:	28.7	28.5	28.4	28.8	28.2	28.1	:
CY	84.3	84.3	84.4	84.4	84.5	84.3	84.2	15.8	15.7	15.6	15.6	15.5	15.7	15.9
LV	:	77.4	77.1	77.1	77.3	77.9	77.9	:	22.6	22.8	22.8	22.4	21.8	21.8
LT	74.6	74.6	75.2	75.0	72.0	72.0	72.1	24.6	24.7	24.0	24.2	27.6	27.6	27.5
LU	84.0	84.2	83.9	84.0	84.6	84.5	84.4	14.6	14.4	14.7	14.6	14.0	14.0	14.1
HU	64.2	64.5	64.7	67.0	67.1	69.1	70.0	32.6	32.5	32.5	30.3	30.3	28.6	27.7
PL	61.1	:	:	:	76.2	:	:	29.3	:	:	:	16.2	:	:
PT	75.6	76.7	77.8	79.0	80.1	79.9	79.9	21.1	20.6	20.1	19.7	19.2	19.4	19.4
SI	80.2	79.1	78.8	78.5	81.4	80.8	80.6	17.7	17.5	17.8	18.1	14.1	14.5	14.6
SK	71.4	70.1	69.6	70.3	72.6	72.5	73.6	27.1	26.3	26.4	27.6	26.2	26.3	25.4
FI	75.5	75.8	75.8	75.9	77.1	77.2	77.4	22.2	21.9	21.9	21.8	21.3	21.3	21.1
SE	67.8	67.8	67.8	67.8	66.5	66.5	66.5	29.5	29.5	29.5	29.5	29.6	29.6	29.6
UK	83.0	82.0	82.0	82.0	82.0	82.0	82.0	17.0	16.0	16.0	16.0	16.0	16.0	16.0
RO	73.7	71.7	70.9	66.6	66.7	68.4	69.0	22.1	21.7	25.0	28.5	29.9	26.8	25.8

Table 3: Labour cost components in Industry and Services, as a percentage of total labour costs, 1996-2002

As the variables "Wages and salaries" and "Employers' social contributions" are highly negatively correlated, the key information contained in Table 3 is already accessible by analyzing only one of these two major labour cost components. Figure 4 shows the time series graph for the variable "Employers' social contributions". The changes are mostly moderate but the direction of change differs, resulting for some of the new MS in a

considerably lower level (Hungary, Slovenia) or to a clearly higher one (Lithuania). The values for Hungary (27.7%), Lithuania (27.5%), and the Czech Republic (26.8%) for 2002 are rather high compared to other European countries but below the corresponding Swedish value (29.6%). The lowest level in 2002 is found in Denmark (10.0%).

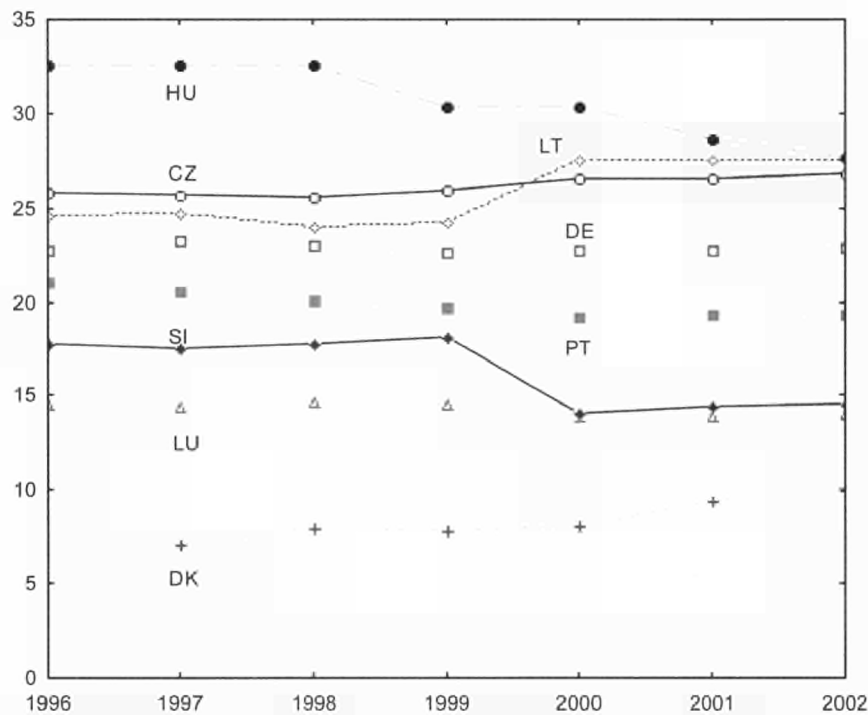


Figure 4: Employers' social contributions in Industry and Services, as a percentage of total labour costs, 1996-2002, for selected countries

Figure 5 gives another look on the data in Table 3 by presenting the level of employers' social contributions for only two selected years, the reference years 1996 and 2000, but now for all 18 countries which provided data for these two years. The countries are ranked by increasing level of social contributions in 1996. The second part of Figure 5 refers to 2000. The order of countries is exactly the same in order to facilitate the identification of changes between both years.

For the majority of the countries represented in Figure 5, there were no substantial changes in the level of employers' social contributions between 1996 and 2000. Only a few countries reported on remarkable or moderate changes (for example, increases in Romania from 22.1% to 29.9% or in Lithuania from 24.6% to 27.6%, and decreases in Poland from 29.3% to 16.2% or in Hungary from 32.6% to 30.3%).

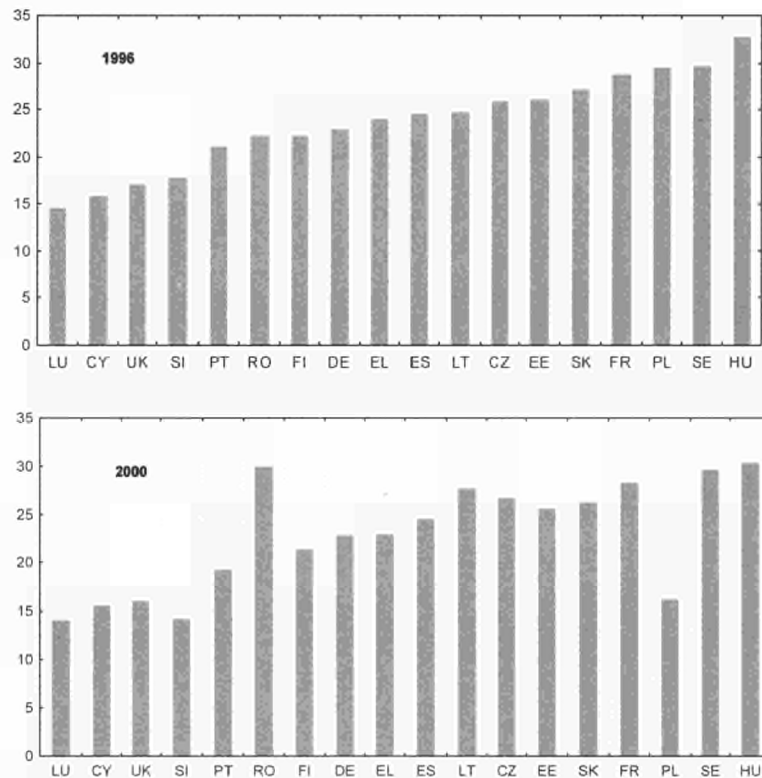


Figure 5: Employers' social contributions (%) in Industry and Services, 1996 and 2002

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Labour costs denote the sum of "Wages and salaries", "Employers' social contributions" and "Other labour costs". The latter usually refers to small labour costs elements and include costs for vocational training or recruitment, taxes based on the wage bill and costs for working clothes minus subsidies received by the employer.

The Community statistics on labour costs provide detailed harmonized data on wages and salaries and other employment-related costs. Basic surveys are presently carried out every four years on the basis of the Council Regulation 530/1999 and Commission Regulation 1726/1999. Key results referring to the main survey 2000 are accessible via <http://forum.europa.eu.int/Public/irc/dsis/wages/information>. Between the main surveys, the countries are asked to send annual updates under a Gentlemen's Agreement.

In this Statistics in Focus, the following official country codes were used (the codes in *italic* refer to countries with missing data not covered by the analysis presented in this publication):

Member States (MS):

Belgium (*BE*), Czech Republic (*CZ*), Denmark (*DK*), Germany (*DE*), Estonia (*EE*), Greece (*EL*), Spain (*ES*), France (*FR*), Ireland (*IE*), Italy (*IT*), Cyprus (*CY*), Latvia (*LV*), Lithuania (*LT*), Luxembourg (*LU*), Hungary (*HU*), Malta (*MT*), Netherlands (*NL*), Austria (*AT*), Poland (*PL*), Portugal (*PT*), Slovenia (*SI*), Slovakia (*SK*), Finland (*FI*), Sweden (*SE*), United Kingdom (*UK*)

Candidate Countries (CC):

Bulgaria (*BG*), Romania (*RO*), Turkey (*TR*).

The labour cost data are averages and usually refer to enterprises with at least 10 employees. Bulgaria and Romania as well as a few of the new MS (Hungary, Latvia, Lithuania, and Slovakia) also include enterprises of sizes below this threshold. The data presented in this publication relate to economic activities covered by NACE sections C-K. NACE (*Nomenclature générale des Activités Économiques*, currently available in version 1.1) denotes the general industrial statistical classification system of economic activities in the European Community. For the sections, the highest aggregated level of this classification system, the following codes are used:

C	Mining and quarrying
D	Manufacturing
E	Electricity, gas and water supply
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and personal & household goods
H	Hotels and restaurants
I	Transport, storage and communication
J	Financial intermediation
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